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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,901	10/06/2000	Johannes Heichler	108627.124	5981

7590

04/09/2003

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60 State Street  
Boston, MA 02109

EXAMINER
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GRANT, CHRISTOPHER C

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/647,901

Applicant(s)

HEICHLER ET AL.

Examiner

Christopher Grant

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 4-11 and 14-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☒ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Telephone Interview*

1. The Examiner contacted Wayne Kennard, on March 25, 2003, to confirm that the notation at the last line of claim 1 on page 20 is inclusive of the information at the bottom of page 20. Mr. Wayne Kennard indicated that the information at the last 7 lines of page 20 is incorporated into claim 1. Therefore, claim 1 includes the following limitations:

*<means for downconverting said beacon signal using a local oscillator frequency;  
means for upstream modulation of said upstream signal onto said downconverted signal;  
means for upconverting said upstream modulated signal onto said downconverted signal using  
said local oscillator frequency which has been used for downconverting.>*

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "said mixer" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Objections***

4. Claims 4, 5 and 7 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

5. The handwritten changes to claims 1-17 were not signed and initialed by the Applicant. Applicant should re-submit an official amendment to the claims in compliance with the rule 37 CFR 1.121 (c).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

or

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3 and 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Evans.

Considering claim 1, Evans discloses a user site reception system for receiving TV and/or audio and/or data signals transmitted from a base station, the system comprising:

a) means (antenna, diplexor 1) for receiving downstream signals from a base station (Head-End, figure 1);

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b) means for generating upstream signals (10-figure 2, col. 4, lines 25-29) to be transmitted from the base station using a high-precision signal (col. 2, line 66 – col. 3, line 3);

c) means (3) for downconverting said beacon signal using a local oscillator frequency;  
means for upstream modulation (10) of said upstream signal onto said downconverted signal;  
means for upconverting (12) said upstream modulated signal onto said downconverted signal using said local oscillator frequency which has been used for downconverting.

Claim 2 is met by the LMDS system described at col. 2, lines 60-65 and figure 2 described at col. 3, lines 25-51.

Claim 3 is met by means (6,7,8,9,4,11) for exploiting the high-precision beacon signal, said mixer comprising: frequency processing means (10) for upconverting the upstreams, given by modulator IF outputs, means for downconversion (3); means (2) for suitable filtering of frequency bands.

Claim 12 is met by a base station (Head-End, figure 1) for broadcasting or re-broadcasting of TV and/or audio and/or data signals said station comprising means for transmitting downstream signals, means for receiving upstream singles and means for transmitting high-precision beacon signals (see figure 1, abstract and col. 4, lines 25-45).

Claim 13 is met by one or more of means for station management ( col. 1, line 48 – col. 2, line 16), means for communication with adjacent cells and remote service provider (col. 1, lines

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10-34) and/or means for communication with other networks like satellite and/or cable (col. 1, lines 35-46).

8. Claims 1-3 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Petranovich.

Considering claim 1, Petranovich discloses a user site reception system for receiving TV and/or audio and/or data signals transmitted from a base station, the system comprising:

- a) means (22) for receiving downstream signals from a base station (10);
- b) means for generating upstream signals (26) to be transmitted from the base station using a high-precision signal (signal from base station, col. 2, lines 1-2);
- c) means (24) for downconverting said beacon signal using a local oscillator frequency; means for upstream modulation (26) of said upstream signal onto said downconverted signal; means for upconverting (24) said upstream modulated signal onto said downconverted signal using said local oscillator frequency which has been used for downconverting.

Claim 2 is met by the receiver system (20) of figure 2.

Claim 3 is met by means (20) for exploiting the high-precision beacon signal, said mixer comprising: frequency processing means (24) for upconverting the upstreams, given by modulator IF outputs, means for downconversion (24); means (30) for suitable filtering of frequency bands.

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Claim 12 is met by a base station (10) a for broadcasting or re-broadcasting of TV and/or audio and/or data signals said station comprising means for transmitting downstream signals, means for receiving upstream signals and means for transmitting high-precision beacon signals (see abstract).

***Allowable Subject Matter***

9. Claims 4-11 and 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wieczorek et al. disclose a receiver system with frequency control based on a signal from the base station.

11. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

**Certificate of Mailing**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

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Assistant Commissioner for Patents  
Washington, D.C. 20231

on \_\_\_\_\_  
(Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_

Signature: \_\_\_\_\_

### **Certificate of Transmission**

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) \_\_\_\_\_ - \_\_\_\_\_ on \_\_\_\_\_.  
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\_\_\_\_\_

Signature: \_\_\_\_\_

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Grant whose telephone number is (703) 305 4755.

The examiner can normally be reached on Monday-Friday 8:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on (703) 305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872 9314 for regular communications and (703) 872 9314 for After Final communications.

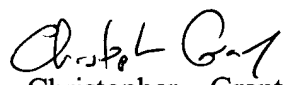
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



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Christopher Grant  
Primary Examiner  
Art Unit 2611

CG

April 6, 2003